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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): MOON, Hi-Chan

Examiner: SMITH, Sheila B.

Serial No.: 09/368,129

Group Art Unit: 2617

Filed: August 4, 1999

Docket: 678-325

For: CHANNEL COMMUNICATION APPARATUS AND
METHOD IN CDMA COMMUNICATION SYSTEM

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

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Respectfully submitted,

Paul J. Farrell

Reg. No.: 33,494

Attorney for Applicant(s)

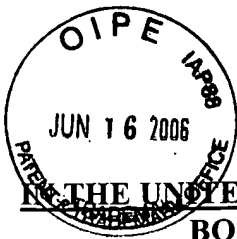
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Michael J. Musella



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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APPEAL BRIEF

REAL PARTY IN INTEREST

The real party in interest is Samsung Electronics Co, Ltd, the assignee of the subject application, having an office at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea.

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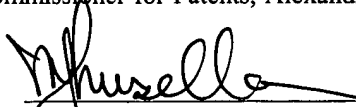
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Dated: June 14, 2006



Michael J. Musella

RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge and belief, there are no currently pending related appeals, interferences or judicial proceedings.

STATUS OF CLAIMS

Original Claims 1-103 were filed on August 4, 1999. Claims 1-103 were subject to restriction and/or election requirement in an Office Action dated February 11, 2004. An election by the Applicant of Claims 1-10, 16-34, 47-89, 96, 99 and 100-103 was made in a Response to Restriction Requirement filed February 26, 2004. Claims 1-10, 16-34, 47-89, 96, 99 and 100-103 were subject to restriction and/or election requirement in an Office Action dated September 27, 2004.¹ An election of Claims 1-10 and 96 was made in a Response to Restriction Requirement filed October 27, 2004. Thus, Claims 1-103 are pending in the Appeal,² with Claims 11-95 and 97-103 having been withdrawn from consideration.³ Claim 1 is in independent form. For the purposes of this Appeal, Claims 1-10 and 96 stand or fall together.

STATUS OF AMENDMENTS

Thus, the Appendix to this Appeal Brief includes Claims 1-103, of which, the status of Claims 1-10 and 96 is indicated as "Original", and the status of Claims 11-95 and 97-103 is indicated as "Withdrawn".⁴

1 The Examiner issued an Office Action dated May 19, 2004. After conducting a telephonic interview between the Examiner and the Applicant's representative, this May 2004 Office Action was subsequently withdrawn and the September 2004 Office Action issued as its replacement.

2 Although subsequent Office Actions only list Claims 1-10 and 96 as pending, none of the originally filed claims, namely Claims 1-103, have ever been cancelled by the Applicant, thus Claims 1-103 continue to remain pending in the application.

3 Although the non-elected claims were never officially withdrawn from consideration, the elections and subsequent prosecution of elected Claims 1-10 and 96 has constructively changed the status of Claims 11-95 and 97-103 from pending to withdrawn.

4 Since only Claims 1-10 and 96 are the subject of this Appeal, the text of the withdrawn claims has been omitted.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention as recited in Claim 1 relates to a signal transmitting method in a base station.

The base station transmits a common channel signal at a first predetermined power level.

The base station transmits a pilot signal at a second predetermined power level.

The base station then transmits the pilot signal at a power level greater than the second predetermined power level.

The transmission from the base station of the pilot signal at the power level greater than the second predetermined power level occurs for a predetermined time period.

The base station transmits a data channel signal.

GROUND FOR REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 1-10 and 96 under 35 U.S.C. §102(e) are anticipated by U.S. Pub. No. US 2001/0055968 A1 to Yoshida et al. (Yoshida).⁵

ARGUMENT

1. Independent Claim 1 is not anticipated by Yoshida

Independent Claim 1 was said to be anticipated by Yoshida.

Claim 1 recites a signal transmitting method in a base station. In the method recited in Claim 1, the base station transmits a common channel signal at a first predetermined power level. The base station then transmits a pilot signal. This initial transmission of the pilot signal is transmitted at a second predetermined power level. After the initial transmission of the pilot

⁵ In both Office Actions dated March 24, 2005 and December 14, 2005 the Examiner reproduces 35 U.S.C. §102(e) as the basis for the rejections, but goes on in paragraphs "1" therein to state that the claims are rejected under 35 U.S.C. §102(b). Applicant has presumed and proceeds herein that this was a typographical error contained in each of these Office Actions. This presumption is based on the fact that the reference cannot qualify as prior art under §102(b).

signal at the second predetermined power level the base station then transmits the pilot signal at a power level greater than the second predetermined power level, in essence, a third power level. The transmission from the base station of the pilot signal at the power level greater than the second predetermined power level, i.e. the third power level, occurs for a predetermined time period. The base station then transmits its data channel signal.

Yoshida et al. discloses a mobile station and a method of reducing interference among radio channels in the mobile station.

1A. Claim 1 relates to three power levels of transmissions while Yoshida discloses only two power levels of transmissions

Claim 1 of the present application recites three power levels at which signals are transmitted. The three power levels are “a first predetermined power level”, “a second predetermined power level”, and “a power level greater than the second predetermined power level.”

In an Office Action dated March 24, 2005, elected Claims 1-10 and 96 were first rejected on the merits under 35 U.S.C. §102(e) as being anticipated by Yoshida. In rejecting independent Claim 1, the Examiner opined:

Regarding claim 1, Yoshida et al. discloses *essentially all the claimed invention*⁶ as set forth in the instant application, further Yoshida et al. discloses a signal transmitting method in a base station (which reads on paragraph 0060), comprising the steps of: transmitting a common channel signal at a first predetermined power level; transmitting a pilot signal at a second predetermined power level, the pilot signal being transmitted at a power level greater than the second predetermined power level for a predetermined time period; and transmitting a data channel signal (which reads on paragraph 0017). (Emphasis added.)

Apart from “a signal transmitting method in a base station” which is allegedly disclosed in

⁶ Although the Examiner subsequently specifies the rejection under §102(e) for anticipation, “essentially all of the claimed invention” is not a proper basis for an anticipation rejection. Furthermore, the cited reference could not even serve as the basis of an obviousness rejection since the subject matter of the reference is so remote and the claims of the present application are so distinct therefrom.

paragraph 0060,⁷ the Examiner cites paragraph 0017 as disclosing each and every element recited in Claim 1. Paragraph 17 of Yoshida reads as follows:

[0017] When each of the mobile stations comprises first transmission power control means for adjusting the transmission power on the basis of a reception level concerned with the pilot signals and second transmission power control means for controlling the transmission power by a control step size on the basis of a control instruction sent from the base stations under connection, the method according to another aspect of this invention comprises the steps of receiving the pilot signals from the plurality of the base stations, determining the transmission power in inverse proportion to a maximum one of reception levels of the pilot signals, judging whether or not a first reception level of the pilot signals concerned with the base stations under connection exceeds a second reception level of the pilot signals concerned with the base stations under non-connection to produce a result of judgement [sic], changing the control step size from one to another when the second reception level exceeds and does not exceed the first reception level.

As is clearly understood from the citation, Yoshida in paragraph 0017 discloses a mobile station and a mobile station that adjusts its transmission power. No actual power levels are disclosed.

In an Office Action dated December 14, 2005, marked “Final” by the Examiner, in which the rejection contained in the March 2005 Office Action was repeated, verbatim,⁸ the Examiner modified her rejection,⁹ stating:

Regarding applicants arguments concerning claim 1, the applicant submitted that there is no disclosure in Yoshida, in paragraph 17 or any other section, of a base station for transmitting a common channel signal at a first predetermined power level; transmitting a pilot signal at a second predetermined power level, the pilot signal being transmitted at a power level greater than the second predetermined power level for a predetermined time period; and transmitting a data channel signal, the examiner contends that this limitation is met [sic] at paragraph 0060 “a base station transmission signal is received as a mobile station reception signal and is delivered from the duplexer 104 to a radio frequency portion 105 and a down converter 106 to be converted into a sequence of base band signals. In the illustrated example, the base band signal sequence conveys first through N-th pilot signals P11-P1N sent from the first through the N-th base stations and first through M-th transmission power control bits Bpc1-

⁷ The position taken by the Examiner that “a signal transmitting method in a base station” is anticipated by paragraph 0060 of Yoshida, or for that matter any part of Yoshida, is discussed in detail in section 1C.

⁸ See December 2005 Office Action at page 2.

⁹ See December 2005 Office Action, Response to Arguments section at page 4.

BpcM sent from the first through the M-th base stations under connections, as mentioned before. Herein, the first through the N-th base stations stand for base stations from which the pilot signals can be received and are usually different in number from the first through the M-th base stations. This is because transmission power of each pilot signal is generally greater than that of a data signal sequence between each mobile station and each base station.”

Therefore the examiner restates and stands by the above rejection.

Yoshida at paragraph 0060 discloses that a base station transmits a signal and a mobile station receives a signal. The final sentence of paragraph 0017 discloses that a power level at which a pilot signal is transmitted is generally greater than that of a data signal. Yoshida recites two power levels: a power level for a pilot signal and a power level for a data signal.

In an Advisory Action dated April 5, 2006, the Examiner again modified her rejection and opined:

In response to applicant’s arguments that Yoshida et al. only transmits any one pilot signal at one power level., [sic] the examiner disagrees and points out [sic] paragraph 0003 which states that each digital signal is transmitted in the form of spread spectrum signals by using a code peculiar or pre-assigned to each of the base stations. In addition, a pilot signal is also usually pre-assigned to each base station to specify the respective base stations and is generated at a constant power level from each base station.

Yoshida at paragraph 0003 discloses a pilot signal being generated at a constant power level. The last sentence of paragraph 0003 of Yoshida (not reproduced by the Examiner in the April 2006 Advisory Action) goes on to state:

Therefore, such a pilot signal may be called a constant power signal which is generated at a predetermined power level from each base station.

The pilot signal transmitted in Yoshida, and known in the art at the time of Yoshida, is a signal that is transmitted at one power level. It was so well known at the time of Yoshida to transmit a pilot signal at only one power level that Yoshida refers to it as “a constant power signal”.

It is well settled that to anticipate a claim a reference must be cited wherein “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Since Yoshida does not disclose the identical invention as claimed in Claim 1 of the present application, the recitation of a mere transmission power adjustment, the recitation of a power

level for a pilot signal and a power level for a data signal, or a constant power level, cannot anticipate the three distinct power levels recited in Claim 1 of the present application.

The three distinct power levels recited in Claim 1 are not anticipated by Yoshida.

1B. The three power levels of transmissions of Claim 1 are used to transmit the specific recited signals while Yoshida only relates to general power control of a mobile station

Claim 1 recites a transmission method in a base station. Claim 1 recites transmitting a common channel signal at a first predetermined power level. Transmitting a signal at a power level is known in the art. Claim 1 goes on to recite that a pilot signal is transmitted at a second predetermined power level. Transmitting a pilot signal at a power level different from another signal is also known in the art.

Claim 1 goes on further to recite that the pilot signal, after being transmitted at the second predetermined power level, is then transmitted at a power level greater than the second predetermined power level. Claim 1 still further recites that the pilot signal being transmitted at a power level greater than the second predetermined power level is transmitted for a predetermined time period.

The pilot signal recited in Claim 1 is transmitted at two power levels, i.e. a second power level and then at a power level greater than the second power level. In addition, the pilot signal is transmitted at the power level greater than the second power level for only a predetermined time period. Yoshida et al. only transmits any one pilot signal at one power level.

In the April 2005 Advisory Action, the Examiner opined:

In response to applicant's arguments that Yoshida et al. only transmits any one pilot signal at one power level., [sic] the examiner disagrees and points ot [sic] paragraph 0003 which states that each digital signal is transmitted in the form of spread spectrum signals by using a code peculiar or pre-assigned to each of the base stations. In addition, a pilot signal is also usually pre-assigned to each base station to specify the respective base stations and is generated at a constant power level from each base station.

As set forth above, this citation clearly defines a pilot signal as being generated at a constant power level, and when further read in light of the last sentence of paragraph 0003, which states that such a pilot signal may be called a constant power signal which is generated at a

predetermined power level from each base station, can only be read as transmitting any one pilot signal at one power level. This was, and remains, so well known at the time of Yoshida to transmit a pilot signal at only one power level that Yoshida refers to it as “a constant power signal”.

It is well settled that to anticipate a claim a reference must be cited wherein “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Since Yoshida does not disclose the identical invention as claimed in Claim 1 of the present application, the recitation of transmitting a pilot signal at a constant power level, cannot anticipate transmitting pilot signals at two distinct power levels as recited in Claim 1 of the present application.

Transmitting a pilot signal at two distinct power levels, i.e. a second power level **and** then at a power level greater than the second power level, as recited in Claim 1 is and cannot be anticipated by Yoshida.

1C. All of the transmissions of Claim 1 originate from a base station while the transmissions of Yoshida originate from a mobile station and multiple base stations

Claim 1 is directed to a method **in a base station** for transmitting signals. Yoshida is directed to a method **in a mobile station** of controlling transmission power.¹⁰

A base station performs each of the elements of Claim 1 of the present application. The base station transmits a common channel signal at a first predetermined power level. The base station transmits a pilot signal at a second predetermined power level. The base station then transmits the pilot signal at a power level greater than the second predetermined power level. The transmission from the base station of the pilot signal at the power level greater than the second predetermined power level occurs for a predetermined time period. The base station transmits a data channel signal.

Paragraph 0060 of Yoshida discloses the subject mobile station receiving pilot signals from base stations. Although paragraph 0060 of Yoshida touches on a base station, Yoshida

¹⁰ See Yoshida at Abstract, lines 1-2.

discloses this only to describe the further operations of the method of reducing interference mobile station. As stated above in sections 1A and 1B, the pilot signals mentioned in Yoshida are called a constant power signal which is generated at a predetermined power level from each base station.

Any power level adjustments disclosed by Yoshida are performed by the mobile station. Apart from the control instruction, Yoshida at paragraph 0017 relates to a reception level of a signal received at a mobile station and adjusting transmission power of the mobile station based thereon.

It is well settled that to anticipate a claim a reference must be cited wherein "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Since Yoshida does not disclose the identical invention as claimed in Claim 1 of the present application, the recitation of power control of a mobile station, cannot anticipate a signal transmission method in a base station as recited in Claim 1 of the present application.

A method in a base station for transmitting signals as recited in Claim 1 is and cannot be anticipated by Yoshida.


CONCLUSION

It is well settled that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); and, that "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner has failed to show that each and every element of Claim 1, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facie case for an anticipation rejection.

Based on at least the foregoing, as the Examiner has failed to make out a prima facie case for an anticipation rejection, independent Claim 1 is not anticipated by Yoshida, and therefore, the rejection of Claims 1-10 and 96 must be reversed.

Dated: June 14, 2006

By: 
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CLAIMS APPENDIX

1. (Original) A signal transmitting method in a base station, comprising the steps of:
transmitting a common channel signal at a first predetermined power level;
transmitting a pilot signal at a second predetermined power level, the pilot signal being transmitted at a power level greater than the second predetermined power level for a predetermined time period; and
transmitting a data channel signal.
2. (Original) The method of claim 1, wherein the pilot signal transmitted at the predetermined power level is spread by a first spreading code, and the pilot signal being transmitted at the higher power level for the predetermined time period is spread by a second spreading code.
3. (Original) The method of claim 2, wherein the pilot signal is spread by one spreading code.
4. (Original) The method of claim 2, wherein the first and second spreading codes are orthogonal codes.
5. (Original) The method of claim 4, wherein the orthogonal codes are Walsh codes.
6. (Original) The method of claim 1, wherein the predetermined time period is located at the boundary of consecutive data frames of the second signal.
7. (Original) The method of claim 6, wherein the predetermined time period occupies half of said consecutive data frames.
8. (Original) The method of claim 1, wherein the predetermined time period is set in consideration of propagation environment around the base station, arrangement of base stations,

and a signal bandwidth.

9. (Original) The method of claim 7, wherein the predetermined time period represents a fraction of one data frame.

10. (Original) The method of claim 1, wherein the higher power level is equal to the overall transmission power of the base station.

11 - 95. (Withdrawn)

96. (Original) The method of claim 1, wherein the transmission power of one of the common channel signal and the data channel signal is decreased for the predetermined time period.

97 – 103 (Withdrawn)

EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 C.F.R. 1.130, 1.131, 1.132 or entered by the Examiner and relied upon by Appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. 41.37.